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USACE Temporary Emergency Power

This briefing provides a recommended generator staging area size and layout and provides suggestions for local, state, federal and industry for the mission to be a success.

Review this briefng in conjunction with the Mission Overview paper.

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Temp Power

- USACE Mission
  - Establish staging area and prepare gensets
  - Perform Pre-Installation Inspection (PII)
    - 249th EN BN
    - or USACE contractor
    - Or State
    - Or Local Entity
  - Install, maintain, de-install generators
- Contract:
  - Currently 1 ACI through Nov 2007
  - Developing New ACI
- Success
  - Local and state peacetime planning
    - PII on file in ENGLink
  - Pre event federal deployment of personnel and equipment to state/federal genset staging area
  - State prioritized requests through FEMA to USACE ASAP
    - Request includes verification that the facility can receive power
  - Locals available at facility to allow installation
    - Normal Install Ops are 0700 – 1900 for all except hospitals, shelters, etc.

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Temp Power PII Database

Provide your state's critical facility database to:

US Army Engineer District Mobile

Attn: John.C.Sharp, HQ-RSC, Annex

201 St. Michael Street

Mobile, Alabama 36602

Or e-mail the data file to John.C.Sharp **@sam.usace.army.mil**

The PII Form, instructions to complete and process are on the www.englink.usace.army.mil public access web site.

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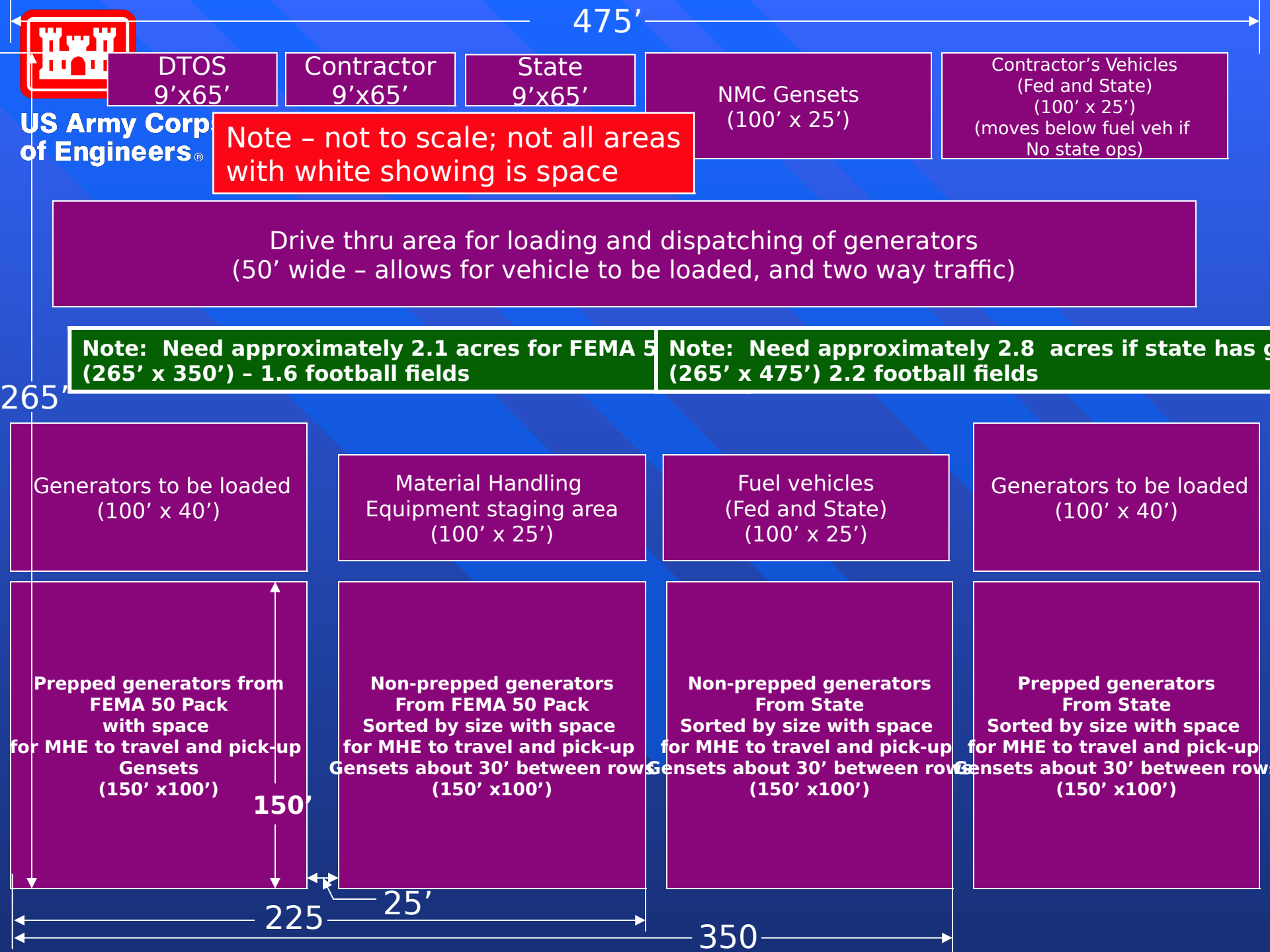
Staging Area Planning Factors

- 1 acre = 43,560 sf
- A football field with end zones (360’ x 160’) is approximately 1.3 acres.
- FEMA 50 Pack takes roughly 12 tractor trailers depending on configuration
- Tractor with trailer is roughly 9’ x 65’ = 585 sf
- Space for the tractor trailers = 12 X 585 sf = 7020 sf for space to move, let’s double = 15,000 sf to park FEMA’s tractor trailers (150’ x 100’).
- Assume 25 prepared and 25 not prepared at any one time so split between 2 sites (150’ x 100’ each). Large gensets remain on trailer.
- Gensets (prepared and unprepared, downloaded and on trailers) – 10 per row, 3 rows with 30’ between rows to allow for MHE to move = approx 150’ x 100’ (0.36 acre) for each. One row of uploaded (large) gensets in each site.
- As additional gensets are brought-in they will rotate through the space provided.
- As de-installs occur – additional space may be required. Space will depend on number of gensets out and if work to return to FMC and storage will occur from the staging area.
- Need good access and egress.
- Need good work and traffic flow internal to site.

• A paved area, roughly 2 to 3.0 football fields in area, with good acce and egress is a good rule of thumb for a Temp Power staging area.

• CAUTION: Pavement must be designed for tractor trailer loads o wheels will push through the pavement.


475’
DTOS
9’x65’
Contractor
9’x65’
State
9’x65’
NMC Gensets
(100’ x 25’)
Contractor’s Vehicles
(Fed and State)
(100’ x 25’)
(moves below fuel veh if
No state ops)
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Note – not to scale; not all areas
with white showing is space
Drive thru area for loading and dispatching of generators
(50’ wide – allows for vehicle to be loaded, and two way traffic)
Note: Need approximately 2.1 acres for FEMA 5
(265’ x 350’) – 1.6 football fields
Note: Need approximately 2.8 acres if state has g
(265’ x 475’) 2.2 football fields
265’
Generators to be loaded
(100’ x 40’)
Material Handling
Equipment staging area
(100’ x 25’)
Fuel vehicles
(Fed and State)
(100’ x 25’)
Generators to be loaded
(100’ x 40’)
Prepped generators from
FEMA 50 Pack
with space
for MHE to travel and pick-up
Gensets
(150’ x100’)
150’
Non-prepped generators
From FEMA 50 Pack
Sorted by size with space
for MHE to travel and pick-up
Gensets about 30’ between rows
(150’ x100’)
Non-prepped generators
From State
Sorted by size with space
for MHE to travel and pick-up
Gensets about 30’ between rows
(150’ x100’)
Prepped generators
From State
Sorted by size with space
for MHE to travel and pick-up
Gensets about 30’ between rows
(150’ x100’)
25’
225
350

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Temp Power Lessons Learned

- Lack of county, state and federal coordinated pre-planning resulted in not meeting expectations
  - Expectations to install a generator range from 6 hours to 24 hours after a request is submitted
- Expectations can only be met if all elements involved with the power mission are on site and prepared to install generators immediately after the storm passes
- Annually submitted databases of power assessments for critical facilities must be developed and maintained

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Temporary Emergency Power Efforts to Improve Based On Lessons Learned

- Basically moving the timeline back to be able to install earlier and using county pre-assessments and post event facility confirmations to preclude from always having to perform assessments with the 249th
- Pre-event:
  - **1 – counties/states are encouraged to permanently install and maintain generators at their self-assessed critical facilities**
  - **2 – counties/states are encouraged to determine facility power needs well before an event and submit that information using the USACE provided data elements to USACE for posting in ENGLink and to be used by the USACE Power PRT during an event. (precludes 249th PP from having to perform a facility assessment before install if the facility is confirmed as not damaged or having entrance blocked) (assessment must be performed by a licensed electrician or an electrical engineer)**

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Temporary Emergency Power Efforts to Improve Based On Lessons Learned

- **Pre-event (con't)**
  - **3 – encourages states and RRCC to designate generator staging area by H-72 hours to allow all to arrive there by h-48 (including deploying gen sets by H-48 hours) (need 5 acres for one FEMA 50 pack)**
  - **4 – promotes/encourages the RRCCs to put $300K against the pre-dec mob for the Temp Power Mission – this buys you the full power PRT, the ACI contractor mobed and preparing gen sets, the 249th teams all ready to install generators immediately after the event.**
- Post event
  - 5 - **counties/states are encouraged to submit prioritized requests that include a confirmation from the facility manager that the facility is not damaged and access is not blocked**
  - **6 – Please do not double request – ask for status on original request**

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Critical Coordination for Generator Installation To Occur

- Pre-installation
  - Receive valid, prioritized request from county through state and FEMA
    - » BONUS: request confirms facility can receive power and access is not blocked
    - » BONUS: pre-storm valid assessment was conducted and available
  - If no valid assessment or confirmation of facilities ability to receive power – send out 249th
    - » 249th contacts county for facility manager to obtain access
  - Valid prioritized request and assessment given to contractor
  - Contractor contacts facility manager for access and contacts power company to ensure power in line is disconnected
  - Contractor confirms power is off and that they are allowed to perform any transformer connects/disconnects or coordinate for the power company to perform.
  - Contractor contacts and physically meets with facility manager at facility
    - » NOTE: Sometimes this happens after normal hours and if the facility manager doesn't show – we can't install
- Install occurs

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Critical Coordination for Generator Maintenance and De-installation To Occur

- Post Installation
  - 249th performs a Quality Assurance inspection of the installation
  - Contractor initiates daily maintenance and fueling
  - USACE QA inspectors perform QA of maintenance.
  - Power company notifies county/state of date for power to be restored to a line
- De-installation requested
  - County through state to USACE Power Action Officer requests de-install.
  - USACE AO notifies Power PRT and Contractor to perform de-install
  - Contractor contacts power company to ensure power in line is off.
  - Contractor contacts facility manager to meet at facility for access to disconnect and remove generator
    - » NOTE: Sometimes this happens after normal hours and if the facility manager doesn't show – we can't de-install
- De-Installation occurs

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Easy Steps to Unified Success

- Temporary Power:
  - DHS/EP&R/FEMA
    - » **STEP 1: Increase Temp Power PSMA to $350,000**
  - RRCC
    - » **STEP 2: Issue the Pre-Dec Deployment for all to Arrive at H-48**
  - State
    - » **STEP 3: Where possible install backup power generation and maintain**
    - » **STEP 4: Read the recommended plan and develop the database IAW Tab D (convertible to Access/Oracle)**
    - » **STEP 5: Provide your state's critical facility database to:**

    US Army Engineer District Mobile

    Attn: John.C.Sharp, HQ-RSC, Annex

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    Mobile, Alabama 36602

    Or e-mail the data file to John.C.Sharp**@sam.usace.army.mil**

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Easy Steps to Unified Success

- **Temporary Power**
  - **States (con't)**
    - **STEP 6: Pre-select staging areas for generator operations**
      - **Two to three Acres of space with good entrance and egress for a FEMA 50 pack**
    - **STEP 7: Facility manager confirm post strike integrity and submit with request**
    - **STEP 8: County/state - Prioritize requests through FEMA to the Federal Power PRT**
      - **Please do not double request – ask for a status of original request**
    - **STEP 9: Facility manager meets installation crew to ensure facility access – this will often occur after normal duty hours**